IN THE CLAIMS

Please amend claims 1, 2, 7-9 and 15 as follows:

1. (Amended) A fiber-semiconductor laser source comprising an optically pumped tunable VCSEL, ~~and~~ a fiber amplifier configured to receive ~~for the~~ a VCSEL laser output of said tunable VCSEL, ~~which are optically pumped by a common~~ an optical pump source producing a pump laser output at a given wavelength, coupling optics configured for coupling said pump laser output of said optical pump source to said tunable VCSEL, said coupling optics configured for coupling said pump laser output of said optical pump source to said fiber amplifier, ~~and said optical pump source,~~ and said coupling optics configured for optically pumping each of said tunable VCSEL and said fiber amplifier with said pump laser output at said given wavelength.

2. (Amended) A laser source according to claim 1 wherein said optical pump source produces ~~a~~ said pump laser output with a wavelength $\lambda 1$ and said VCSEL produces a VCSEL laser output with a wavelength $\lambda 2$.

3. (Original) A laser source according to claim 2 wherein said optical pump source is a diode laser.

4. (Original) A laser source according to claim 3 further including means for deriving first and second pump laser beams from the laser output of said diode laser, first means for injecting said first laser beam into said VCSEL and second means for injecting said second laser beam into said fiber amplifier.

5. (Original) A laser source according to claim 4 wherein said fiber amplifier comprises a doped optical fiber, and further including means for injecting said VCSEL laser output into said fiber and means for extracting the amplified VCSEL laser output from said fiber.

6. (Original) A laser source according to claim 1 wherein said fiber amplifier comprises a doped optical fiber having one end disposed to inject said pump laser output into said VCSEL whereby to cause said VSCEL to produce said VCSEL laser output, and further including a multiplexer connected to the opposite

end of said doped optical fiber and coupled to said optical pump source for (a) injecting said pump laser output into said fiber and (b) coupling said VCSEL laser output to an optical device.

7. (Amended) An efficient laser source comprising a pump laser for emitting a pump laser beam at a wavelength $\lambda 1$, a tunable vertical cavity surface emitting laser (VCSEL), ~~means~~ an optical coupler for directing said pump laser beam into said VCSEL so as to cause said VCSEL to emit a VCSEL laser beam at a wavelength $\lambda 2$, an optical gain fiber, and light coupling ~~means~~ optics configured for (a) directing said VCSEL laser beam at wavelength $\lambda 2$ into said optical gain fiber and (b) injecting said pump laser beam at wavelength $\lambda 1$ into said optical gain fiber so as to provide amplification for said VCSEL laser beam.

8. (Amended) A laser source according to claim 7 wherein said pump laser beam is collimated, and further wherein said light coupling means comprises:

a first diachronic beam splitter which is adapted to reflect and transmit light of wavelength $\lambda 1$ and to transmit light

of wavelength $\lambda 2$, said beam splitter being disposed so as to reflect a portion of said pump laser beam into said VCSEL and also to receive and transmit the VCSEL laser beam emitted by said VCSEL;

a second polarization dependent beam splitter disposed to receive the VCSEL laser beam output from first beam splitter, said second beam splitter being adapted to reflect said VCSEL laser beam according to a first VCSEL beam polarization and to transmit said same laser beam according to a second polarization rotated 90 degrees from said first beam polarization;

~~means~~ an optical coupler configured for receiving said VCSEL laser beam reflected by said second beam splitter and injecting same into one end of said optical gain fiber;

reflector means for injecting said pump laser beam into said optical gain fiber;

a Faraday rotator mirror coupled to the opposite end of said optical gain fiber for receiving the VCSEL laser beam reflected from said second beam splitter, rotate the beam polarization by 90 degrees, and reflect the VCSEL beam with rotated polarization back along optical gain fiber for transmittal through said second beam splitter; and

~~optical~~ an output coupler ~~means~~ configured for receiving the reflected VCSEL laser beam with rotated polarization that is transmitted through said second beam splitter.

9. (Amended) An improved laser source comprising:

a tunable vertical cavity surface emitting laser (VCSEL);

a pump laser for generating a single mode output beam at a wavelength $\lambda 1$;

diachronic beam splitter means for receiving said pump laser output beam and dividing the power of that beam so as to form a first and second beams of like wavelength $\lambda 1$, said beam splitter being positioned so that one of said beams is injected into said VCSEL so as to cause said VCSEL to emit a VCSEL laser beam at a wavelength $\lambda 2$;

an optical gain fiber; and

light coupling ~~means~~ optics configured for directing said VSCEL laser beam into said optical gain fiber and for injecting the other of said first and second beams from said pump laser into said optical gain fiber so as to provide amplification for said VSCEL laser beam.

10. (Original) An improved laser source according to claim 9 wherein the other of said first and second beams of wavelength $\lambda 1$ is coupled to said gain fiber by reflection from a plurality of mirrors.

11. (Original) An improved laser source according to claim 9 wherein said VCSEL has a movable mirror and a fixed internal mirror aligned with its vertical cavity, and further wherein said pump laser and said beam splitter are arranged so as to couple said one beam of wavelength $\lambda 1$ to said VSCEL via transmittal through said fixed mirror.

12. (Original) An improved laser source according to claim 9 wherein said VCSEL has a movable mirror and a fixed internal mirror aligned with its vertical cavity, and further wherein said pump laser and said beam splitter are arranged so as to couple said one beam of wavelength $\lambda 1$ to said VSCEL via said transmittal through said movable mirror.

13. (Original) An improved laser source according to claim 9 wherein said light coupling means comprises a diachronic

mirror disposed so as to receive said VSCEL laser beam and the other of said first and second beams from said pump laser and to direct them into said optical gain fiber.

14. (Original) An improved laser source according to claim 9 further including an optical lens for directing said VSCEL laser beam and the other of said first and second beams from said pump laser into one end of said optical gain fiber.

15. (Amended) An improved laser source comprising:

a tunable vertical cavity surface emitting laser (VCSEL);

an optical gain fiber having one end optically coupled to the output side of said VCSEL;

a pump laser for generating a single mode pump laser beam at a wavelength $\lambda 1$; and

a wavelength division multiplexer having first and second input ports and an output port, with said first input port coupled to said gain fiber and said second input port coupled to said pump laser, said multiplexer ~~being~~ configured for ~~adapted to~~ (a) ~~inject~~ injecting said pump laser beam from said second input port into said gain fiber so as to optically pump said

VCSEL optically coupled to said output gain fiber and thereby cause it to emit a VCSEL laser beam that is injected into said one end of said gain fiber, and (b) ~~pass~~ passing said VCSEL laser beam from said gain fiber to said output port for extraction from said source, said VCSEL laser beam being amplified by said gain fiber during its transit from said one end to said output port.

16. (Original) An improved laser source according to claim 15 wherein said pump laser is a pulse laser, and said multiplexer is adapted to alternately inject pump laser pulses into said VCSEL and to pass said amplified VCSEL laser beam to said output port.